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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/572,328	03/17/2006	Yuichiro Shindo	OGOSH49USA	1326

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EXAMINER

FIORITO, JAMES

ART UNIT	PAPER NUMBER
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1793

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/572,328	Applicant(s) SHINDO ET AL.	
	Examiner JAMES A. FIORITO	Art Unit 1793	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2,7 and 10-27 is/are pending in the application.
4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 2,7 and 10-27 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 March 2006 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>1/07</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2, and 10-24 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over JP 2003-192346.

JP '346 teaches highly pure zinc oxide product with a particle size of 1 micron or larger (Abstract).

JP '346 does not expressly state all the detailed product limitations of instant claims 2, and 10-24. However, where the claimed and prior art product(s) are identical or substantially identical, or are produced by identical or substantially identical process(es) the burden of proof is on applicant to establish that the prior art product(s) do not necessarily or inherently possess the characteristics of the instantly claimed product(s), see *In re Best*, 195 USPQ 430.

Claims 2, and 10-24 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over JP 2001-039713.

JP '713 teaches highly pure zinc oxide product (Abstract).

JP '713 does not expressly state all the detailed product limitations of instant claims 2, and 10-24. However, where the claimed and prior art product(s) are identical or substantially identical, or are produced by identical or substantially identical process(es) the burden of proof is on applicant to establish that the prior art product(s) do not necessarily or inherently possess the characteristics of the instantly claimed product(s), see *In re Best*, 195 USPQ 430.

Claims 2, 7, and 10-27 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Harlamovs US 2007/0193413.

Harlamovs teaches a process of treating zinc ore, comprising the steps of acid leaching (Figure 1 Item 12), solvent extraction (Figure 1 Item 30), removing organic contaminants with activated carbon (Example 20), and recovering zinc hydroxide which is heated to make zinc oxide (Paragraph 101).

Harlamovs does not expressly state all the detailed product limitations of instant claims 2, and 10-24. However, where the claimed and prior art product(s) are identical or substantially identical, or are produced by identical or substantially identical process(es) the burden of proof is on applicant to establish that the prior art product(s)

do not necessarily or inherently possess the characteristics of the instantly claimed product(s), see *In re Best*, 195 USPQ 430.

Claims 2, 7, and 10-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Duyvesteyn US 4610722, or Duyvesteyn US 4572771 in view of Cashman US 6361753 and Lee US 6338748.

Duyvesteyn '722, and Duyvesteyn '771 teach a process of recovering zinc from arc furnace dust, comprising the steps of acid leaching ('722 at Figure Item 1, '771 at Figure Item 10), and solvent extraction ('722 at Figure Item 5, '771 at Figure Item 16).

Duyvesteyn '722 and '771 do not expressly teach a step of treating with activated carbon or obtaining zinc hydroxide with an addition of an alkaline solution.

Lee teaches a process of recovering zinc from arc furnace dust (Abstract), wherein the process comprises a step of treating the process stream with activated carbon (Column 6 Lines 5-22). At the time of invention it would have been obvious to one of ordinary skill in the art to form the process of Duyvesteyn '722 or '771 including the step of treating the process stream with activated carbon in order to remove organic contaminants (See Lee Column 6 Lines 5-22).

Cashman teaches a method for converting zinc chloride in a mixed metal solution of soluble base metals leached from electric arc flue dust to a zinc oxide precipitate, comprising the steps of: (a) adding Ca(OH)_2 to the mixed metal solution in at least about 90% of the theoretical stoichiometric amount of Ca(OH)_2 necessary to convert ZnCl_2 in the solution to zinc oxide at a reaction temperature of at least about 150

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degrees C. and at an elevated pressure of at least about 20 psi higher than the vapor pressure of the solution at the reaction temperature to produce a zinc-rich precipitate; and (b) filtering the zinc-rich precipitate from the solution to leave a calcium chloride solution suitable for recycling to a reactor for treating EAFD and to yield zinc oxide solid that has less than 1.0 wt % Cl.

At the time of invention it would have been obvious to one of ordinary skill in the art to form the process of Duyvesteyn '722 or '771 including the steps of treating ZnCl of Cashman in order to obtain a chlorine free zinc solid (See Cashman Abstract).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JAMES A. FIORITO whose telephone number is (571)272-7426. The examiner can normally be reached on 9am - 6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stanley Silverman can be reached on (571) 272-1358. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/James A Fiorito/
Examiner, Art Unit 1793

/Wayne Langel/
Primary Examiner, Art Unit 1793